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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/357,220	07/20/1999	YOSHIKAZU OOCHI	450100-4991	8900

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EXAMINER	
TRAN, NHAN T	
ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/357,220	OOCHI, YOSHIKAZU	
	Examiner	Art Unit	
	Nhan T. Tran	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 6,614,477 B1) in view of Kawamura et al (US 5,767,903).

Regarding claim 1, Lee discloses a video camera apparatus (Figs. 4 & 5) for capturing video images as frames, the apparatus comprising:

a solid image sensor (CCD 42) having an electronic shutter for outputting an image-sensing signal in a frame scan mode, said solid image sensor including a plurality of pixel sensors configured to process charges accumulated on the pixel sensors as the image-sensing signal (see Fig. 4, col. 3, line 35 – col. 4, line 31),

wherein the frame scan mode, the charges accumulated and stored for a first field of a particular frame are discharged before the charges accumulated for a second field of the

particular frame are stored (see Fig. 3 and col. 3, line 49 – col. 4, line 8, wherein all charges in the first field of a frame are discharged by shutter discharge pulse before charges of the second field are accumulated and stored in the CCD 42 at exposure interval in 30 frames/sec scan);

wherein the stored charges of the second field are read out in next two fields of a subsequent frame (see Fig. 3 and col. 3, line 49 – col. 4, line 31 and note that the stored charges in the photodiodes of CCD 42 are read out in an inherent delay manner that causes readout period to fall into next two fields of subsequent frame for the CCD to function as disclosed);

drive control means (47, 46 shown in Figs. 4 & 5) for controlling the electronic shutter of the solid state image sensor at a filed cycle if a standard television system (e.g., 30 frames/sec in NTSC or 25 frames/sec in PAL) as a basic cycle, thereby to output the image sensing signal from the solid state image sensor in the frame scan mode (see col. 4, lines 45-67 and col. 3, lines 49-64).

Lee also discloses in the background of the invention that the image data of the frame scan mode may represent a still image or a sequence of images (col. 1, lines 16-17).

Lee is silent about a progressive scan mode. However, as taught by Kawamura, a frame scan mode is also implemented as a progressive scan mode in compliance with NTSC system of 30 frames/sec by controlling electronic shutter pulses to avoid degradation of resolution in a vertical direction (see Kawamura, col. 8, line 56 – col. 9, line 40 and col. 3, lines 5-8).

Therefore, it would have been obvious to one of ordinary skill in the art to implement a still image mode for capturing still images in special moments using a frame scan mode or a progressive scan mode to produce high quality still images with full vertical resolution in addition to video images, thereby improving the functionality of the video camera.

Regarding claim 2, see the analysis of claim 1.

Regarding claim 3, see the analysis of claim 1. Lee also discloses that the frame rate is variable by controlling shutter pulse such that the frame rate is less than or **equal** to the field rate which implies the electronic shutter speed of an interlace scan mode as shown in Fig. 3 and col. 2, lines 15-16. The combined teachings of Lee and Kawamura also disclose output means for outputting the image sensing signal in the progressive scan mode based on the shutter speed (see Lee for composite video signal or digital luminance/chrominance signals in Fig. 4 or Kawamura in Fig. 10).

Regarding claim 4, see the analysis of claim 3.

Regarding claim 5, see the analysis of claim 1. Although Lee does not explicitly disclose a scan converter for converting the image sensing signal based on progressive scanning, into an interlace scan signal and a recording means for recording the image sensing signal based on progressive scanning or the image sensing signal converted into the interlace scan signal, these features are further taught Kawamura in col. 9, line 60 – col. 10, line 9, wherein the progressive image signal is converted into interlace scan signal and store in the memory 50 by the memory controller 52 so that the converted image signal can be displayed on a conventional NTSC display.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Kawamura to convert progressive scan image signal into interlace scan signal and store the converted signal into a memory for enabling the user to view the image on a conventional NTSC display device in a convenient manner.

Regarding claim 6, see the analysis of claim 5.

3. Claims 7 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 6,614,477 B1) and Kawamura et al (US 5,767,903) and in further view of Inuiya (US 6,222,986 B1).

Regarding claim 7, Lee and Kawamura discloses all limitations of claim 7 as analyzed in claims 1, 3 & 5 above except for explicitly disclosing a state is provided for storing still pictures according to said progressive scan mode; and whereby when said storing of a still picture according to said progressive scan mode is performed, the image information corresponding to said still picture is stored in a record medium such that upon playback of said still image information from said record medium said still picture will be displayed for a predetermined period of time. Inuiya teaches a still capture button (43) is provided on a video camera for capturing and storing a still picture of full resolution (progressive scan image) onto a recording medium during movie recording such that upon playback of the still picture, the picture is displayed on a display unit in fixed period of time for the user to review or confirm the captured image (see Inuiya, col. 17, lines 25-59 and col. 19, lines 49-55).

Therefore, it would have been obvious to one of ordinary skill in the art to further modify the video camera apparatus in Lee and Kawamura to incorporate the teaching of Inuiya to arrive at the Applicant's claimed invention for recording still image in progressive scan mode onto a recording medium in response to an operation of a still-image shutter button such that the image would be played back on a display unit in a predetermined period of time for the user to review or confirm the captured image.

Regarding claim 8, see the analysis of claim 7.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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